

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

R E M A R K S

Claims 1 to 7, 12, 13, 15, 16, 18, 26 to 30, 36, 37, 39, 40 and 42 to 52 as set forth in Appendix I of this paper are now pending in this case. Claims 14, 17, 20 to 25, 31 to 35, 38 and 41 have been canceled and Claims 44 to 52 have been added.

The differences between the Claims 1 to 7, 12, 13, 15, 16, 18, 26 to 30, 36, 37, 39, 40, 42 and 43 as set forth in Appendix I and the claims previously submitted are set forth in Appendix II of this paper. Accordingly, Claims 1, 2, and 43 have been amended to better bring out the essential features of applicants' compounds. Claims 12 and 36 have been revised to reflect the subject matter previously set forth in Claims 12, 1, and 17, and in Claims 36, 38, and 41, respectively. Claims 16, 27 and 40 have been revised for clarity.

New Claims 44 to 52 are essentially generic to the subject matter of Claim 6 and Claim 29, Claim 5 and Claim 28, Claim 4 and Claim 27, Claim 7 and Claim 30, Claim 3 and Claim 26, Claim 12 and Claim 36, Claim 13 and Claim 37, Claim 15 and Claim 39, and Claim 18 and Claim 42, respectively. No new matter has been added. Favorable action is solicited.


The Examiner has rejected Claims 1 to 43 under 35 U.S.C. §112, ¶2, contending that the claims fail to particularly point out and distinctly claim the subject matter which applicants' regard as their invention.

In one aspect, the Examiner contends that Claim 2 is indefinite because the limitation " X^2R^3 " and the limitation "enol ether" lack antecedent basis (items No. 1). and No. 4)., page 5 of the Office action). It is respectfully submitted that the Examiner's position is not understood in light of the formulae set forth in Claim 2, and in light of the fact that Claim 2 does not depend from Claim 1 and merely incorporates a part of the definitions set forth in Claim 1 by reference. Favorable reconsideration of the Examiner's position, or clarification thereof, is respectfully solicited.

The Examiner has further pointed to the fact that Claims 14 and 38 are substantially duplicates of Claims 12 and 36 (items No. 2). and No. 5)., page 5 of the Office action). Favorable reconsideration of the Examiner's position and withdrawal of the respective rejection is

solicited in light of the amended versions of Claims 12 and 36 and applicants' cancellation of Claims 14 and 38.

Applicants have adopted the language suggested by the Examiner in item No. 3)., page 5 of the Office action, and have removed the misspelled radical on page 3 (item 6)., page 5 of the Office action). Withdrawal of the respective rejection is, therefore, respectfully solicited.

Applicants have additionally clarified the definition of the heterocyclic ring formed by R¹⁵ and R¹⁶ together with the nitrogen atom to which those radicals are bonded with a particular view to the Court's holding in In re Wiggins (488 F.2d 583, 179 USPQ 421 (CCPA 1973)) that a definition of a group  as representing "a saturated heterocyclic group of five to seven ring atoms, from one to two nitrogen atoms, and up to one oxygen atom" rendered a claim indefinite because the definition allowed for ring atoms different from carbon, nitrogen and oxygen which where the ring members set forth in the supporting disclosure. Accordingly, applicants have revised the definition to specifically require that the respective 4- to 7-membered heterocyclic rings consist of the nitrogen atom to which are bonded, and carbon atoms and optionally one ring member selected from a particular group of moieties. Favorable reconsideration of the Examiner's position and withdrawal of the respective rejection is, therefore, respectfully solicited.

The Examiner has rejected Claims 1 to 43 under 35 U.S.C. §112, ¶1, contending that those claims relate to subject matter which was not described in the specification in such a way as to enable a person of ordinary skill in the pertinent art to make and/or use the invention. More particularly, the Examiner contends that the expressions "enol form", "enol ether", and "heterocyclic structure" (in accordance with the present amendment revised to refer to "heterocyclic ring") are open-ended and all encompassing because the specification does not provide for a definition thereof.

To fulfill statutory written description requirement, the specification must describe invention in sufficient detail that a person skilled in the art can clearly conclude that inventor invented claimed invention (Regents of University of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 43 USPQ2d 1398 (CAFC 1997)), and it is not necessary that

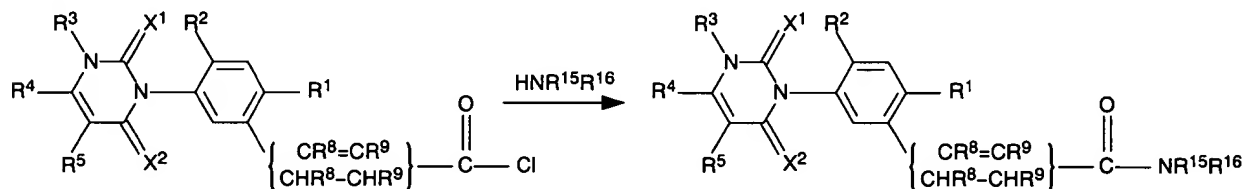
details are set forth in the specification which are within the general technical knowledge of the person having ordinary skill in the pertinent technology (ie. Martin v. Johnson, 454 F.2d 746, 172 USPQ 391 (CCPA 1972)). The expressions "enol form" and "enol ether" are well known in the chemical art as, for example, corroborated by the attached copies from J. March's textbook "Advanced Organic Chemistry" (McGraw-Hill International Book Company, 1977, ie. subject index, page 1295). It is furthermore well known in the art that herbicidal compounds which comprise a uracil ring wherein one ring nitrogen atom carries a hydrogen, an alkyl group, an alkenyl group or any alkynyl group are in the "keto form" or the "enol form", ie.:



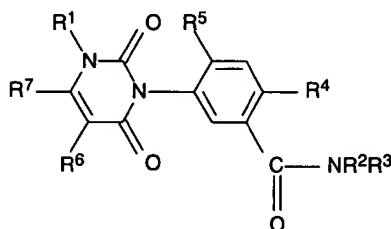
See, for example, Ellis et al. (CH 482 402 (1960), col. 2, indicated line 46 et seq.), Lutz et al. (US 3,981,715 (1968), ie. col. 1, indicated line 60 et seq.), Wenger et al. (US 4,941,909 (1987), col. 1, indicated line 53 et seq.), Suchy et al. (US 5,183,492 (1989), col. 1, indicated line 42 et seq.), and Suchy et al. (US 5,041,156 (1987), col. 2, indicated line 5 et seq.) which were cited in applicants' Information Disclosure Statement (see also applicants' disclosure on page 17, indicated line 21 et seq.). Further, neither the expression "enol form" nor the expression "enol ether" as set forth in applicants' claims can be taken to be "open-ended and all encompassing" as asserted by the Examiner. As clearly set forth in Claim 1, the "enol form" is limited to a compound of formula I in which R³ -which corresponds to the radical "R" of the foregoing formulae- is hydrogen (ie. the last two lines of Claim 1), and Claim 2 defines the "enol ether" form as being limited to the phenyluracils wherein R³ denotes an alkyl, alkenyl or alkynyl radical. As seen from the above referenced prior art it is well known that such enols exhibit a similar effect as the "keto" forms of the respective compounds. In light of the foregoing, it is respectfully urged that the specification provides sufficient information and guidance as to enable a person of ordinary skill in the pertinent art to make and/or use the "enol form" and "enol ether" referred to in applicants' claims.

In view of the amendment of the definition of R¹⁵ and R¹⁶ the Examiner's position that the expression "heterocyclic structure" (in

accordance with the present amendment revised to refer to "heterocyclic ring") is "open-ended and all encompassing" can no longer be regarded as applicable. Also, the Examiner's position that the guidance provided in applicants' specification is insufficient to enable a person of ordinary skill to prepare specific compounds within the scope of the claims in addition to those set forth in applicants' disclosure. As disclosed on page 67, indicated lines 9 to 15, of the application the respective phenyluracils are prepared by reacting the corresponding acid chloride with a cyclic amine in accordance with the following reaction scheme:



Both the referenced synthesis as well as the 4- to 7-membered rings are well known in the art pertaining to herbicidal phenyluracils as, for example, corroborated by the disclosure of *Wenger et al.* (WO 89/02,891, cited on page 8, indicated line 4, of the application; corresponding to US 5,017,211), which discloses that herbicidal phenyluracils of formula



wherein R^2 and R^3 *inter alia* "together with the nitrogen atom to which they are attached signify a four to seven-membered heterocyclic ring which is optionally mono- or multiply substituted with C_1 - C_6 -alkyl and which, in addition to the nitrogen atom, can also have in the ring an oxygen atom, a sulfur atom and/or a second nitrogen atom" (ie. Claim 1 of US 5,017,211), and which phenyluracils are, for example, prepared by reacting the corresponding benzoic acid chloride with a cyclic amine HNR^2R^3 (ie. reaction scheme 1 of US 5,017,211). It is therefore not seen why a person of ordinary skill in the pertinent art would require information and/or guidance in addition to that given in applicants' disclosure in order to prepare the additional embodiments.

The Examiner further contends that the specification lacks adequate representative exemplification for the breadth of applicants'

claims. Breadth alone is, however, not indefiniteness (In re Gardner et al., 427 F.2d 786, 166 USPQ 138 (CCPA 1970); In re Conley et al., 490 F.2d 972, 180 USPQ 454 (CCPA 1974); Ex parte Lewis et al., 197 USPQ 543 (POBA 1977); Ex parte Scherberich et al., 201 USPQ 397 (POBA 1977); Ex parte Schundehutte et al., 184 USPQ 697 (POBA 1974); see also Judge Baldwin's concurring opinion in In re Mayhew, 927 F.2d 1229, 188 USPQ 356 (CCPA 1976)). Nor is lack of exemplification basis for a rejection under 35 U.S.C. §112, ¶1. In In re Anderson (471 F.2d 1237, 176 USPQ 331 (CCPA 1973)) the Court had to decide about several claims which were rejected as "broader than warranted by the disclosure". In the preceding decision of the Board the examiner's rejection was affirmed because of (1) lack of exemplification, and (2) lack of a suggestion of "how to use" a material encompassed by the claims and generally disclosed but not specifically exemplified (176 USPQ at 333, cols. 1-2). In In re Anderson the Court stressed that 35 U.S.C. §112, ¶1, does not require that everything within the scope of a claim be exemplified. Citing American Anode, Inc. v. Lee-Tex Rubber Products Corp. (136 F.2d 581, 585, 58 USPQ 7, 11 (7th Cir. 1943)) the court reversed the Board decision and stressed that lack of exemplification was insufficient reason for a rejection under para. 1 of Section 112. The same rationale was stressed by the Court in In re Fouche (439 F.2d 1237, 169 USPQ 429 (CCPA 1971)):

Inclusion of representative examples is not required to enable a person skilled in the art to use a generic invention; nevertheless, applicant must use some technique of providing teaching of how to use which is commensurate with breadth of protection sought by claim unless such knowledge is already available to persons skilled in the art;

(*ibid.* No. 3, 169 USPQ at 434). With regard to the utilization of the phenyluracil compounds, applicants disclosure provides detailed information on page 87, indicated line 24, to page 99, indicated line 30, of the application, which is commensurate with the breadth of protection sought. Accordingly, applicants' disclosure fully complies with the standards enunciated by the Court in In re Fouche, and the Examiner's indication to the contrary is not deemed to be well taken.

The Examiner's position that applicants' claims relate to structurally divergent compounds, and that a person of ordinary skill in the art would not reasonably extrapolate the activity to the scope of applicants' claims is deemed to be no longer applicable in light of the amendment which specifies the compounds as carrying a radical

$-C(R^8)=C(R^9)-CN$, $-C(R^8)=C(R^9)-CO-R^{10}$ or $-CH(R^8)-CH(R^9)-CO-R^{10}$ in the position of W. Favorable reconsideration and withdrawal of the rejection under 35 U.S.C. §112, ¶1, is therefore respectfully solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

KEIL & WEINKAUF



Herbert B. Keil

Reg. No. 18,967

1101 Connecticut Ave, N.W.
Washington, D.C. 20036
(202) 659-0100

Encl.: THE AMENDED CLAIMS (Appendix I)

THE CHANGES TO THE CLAIMS (Appendix II)

J. March "Advanced Organic Chemistry", pp. 72-73, 536-537, 1295 (1977)

HBK/BAS